



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/009,888 | 05/29/2002 | Edward E Williams | 194-15537-WO-US | 5542 |

7590 05/21/2003

Stephen A Littlefield
Baker Hughes Incorporated
3900 Essex Lane
Suite 1200
Houston, TX 77027

EXAMINER

CECIL, TERRY K

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1723

5

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,888

Applicant(s)

WILLIAMS, EDWARD E

Examiner

Mr. Terry K. Cecil

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 13-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted. The groups are as follows:

- Group I, claims 1-12, drawn to an apparatus for the disinfection of wastewater.
- Group II, claims 13-25, drawn to a method for the disinfection of wastewater.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

- The special technical feature (STF) of Group I is a plurality of injection devices spaced along an elongated passageway and having a flow control device for regulating a flow of disinfectant from a disinfectant source and conduit arrangement.
- The STF of Group II is introducing a disinfectant into wastewater flowing through an elongated path and controlling the dosage of disinfectant to each of a plurality of dosing locations.

The features that both groups having in common include spaced injection and flow control from a source of disinfectant. However, those features are already known in the art—e.g. the British

Art Unit: 1723

Reference 1,263,916. Therefor, those features do not define a contribution over the art and unity of invention is lacking.

3. During a telephone conversation with Stephen Littlefield on 5-15-2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Examiner Note

All of the references cited on the search report of the parent international application have been reviewed by the examiner. The references have been cited by the examiner on the attached form-892 but copies have not been provided.

Oath/Declaration

4. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02. The oath or declaration is defective because:

It does not identify the mailing or post office address of each inventor. A mailing or post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing or post office address should include the ZIP Code designation. The mailing or post office address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Art Unit: 1723

Although the declaration filed 5-29-2002 includes a residence address, it does not include a mailing address for the inventor nor indicate that such is the same as the residence address.

Drawings

5. The drawings are objected to because of the following reasons:

- The following reference signs mentioned in the disclosure are not shown in the drawings: "5" cited on the last line of page 13. See 37 CFR 1.84(p)(5).

Applicant is required to submit a proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. Objections to the drawings will not be held in abeyance.

Claim Rejections - 35 USC ' 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rejected because of the following reasons:

- The following terms lack antecedent basis: "each of the flow control devices" (claim 4, line 2). In line 9 of claim 1, did the applicant intend to claim "at least one adjustable flow control device"? or maybe "respective adjustable flow control devices"?

Art Unit: 1723

- Claims 5 and 6 are rejected since they suffer the same defects as claim 4 from which they depend.

Claim Rejections - 35 USC ' 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-5, 7, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sarunac (U.S. 4,997,574). As shown in figure 5, Sarunac discloses a system comprising a plurality of injection devices 25 spaced along an elongated flow path of a contact tank for dosing chlorine thereto from a source of chlorine and including a conduit arrangement in communication with the chlorine source and having respective flow control devices (65, 75) operable coupled to a controller (60, 70) [as in claims 1-4]. Sarunac also discloses

- an embodiment wherein the source of disinfectant for the plurality of injectors is chlorine that is injected into a stream of water branched from downstream of the tank (a source of dosing liquid, see col. 11, lines 2-14)[as in claim 10];
- a sensor device 45 coupled to the controller (60, 70) that is programmed to initiate adjustment of the flow control devices in response to the sensor output [as in claim 5]; and
- more than two injection devices (col. 4, lines 59-65) [as in claim 7] each including a group of injectors 35 feed by a single conduit [as in claim 9].

Art Unit: 1723

10. Claims 1, 4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by The British Reference (1,263,916), hereinafter '916. '916 discloses a system for disinfecting wastewater comprising a plurality of evenly spaced metering points D for injecting a disinfectant in the flow path of a paper machine. A control unit C communicates with valves (1-6) to control the dosing of disinfectant from a tank T [as in claims 1, 4 and 7-8].

11. Claims 1-2, 4-6, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Schuk et al. (U.S. 3,760,829) as evidenced by Pressley et al. (U.S. 3,732,164), hereinafter "Pressley" (Schuk incorporates by reference the subject matter of Pressley, see col. 1, first paragraph). As shown in figure 2, Schuk discloses a system for disinfecting wastewater comprising a plurality of injectors spaced along a flow path in communication with a chlorine supply (the use of injectors is cited in col. 10, line 53 of Pressley). The dosing of chlorine is controlled by respective valves 9 and 15 coupled to a control system (6, 8, 11, 13, 14) [as in claims 1-2 and 4]. The control system operates the valves in response to outputs from sensors (e.g. 4, 5 and 12) [as in claim 5] and also a flow rate meter 1 [as in claim 6].

As shown in figure 3 of Pressley, Schuk also discloses supplying product water as a dosing liquid to the chlorine (col. 5, lines 49-52 of Pressley)[as in claim 10].

Schuk also discloses systems where post-treatment is effected in carbon columns downstream of the chlorination (col. 10, lines 6-61 of Pressley) [as in claim 12] and pre-treatment to remove lime (col. 5 lines 32-37; col. 6, line 5-7) [as in claim 11].

Art Unit: 1723

12. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (703)305-0079 for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:00a to 4:30p, on at least four days during the week M-F.
- The group receptionist can be reached at (703)308-0661 for inquiries of a general nature or those relating to the status of this or proceeding applications.
- Wanda Walker, the examiner's supervisor, can be reached at (703)308-0457 if attempts to reach the examiner are unsuccessful.
- Fax numbers for this art unit are as follows:
 - i. (703)872-9310 for *official* faxes (i.e. faxes to be entered as part of the file history) that are not after-final; and
 - ii. (703)872-9311 if after-final.

TKC
May 15, 2003

Examiner Terry Cecil
A.U. 1723